

REMARKS

Applicants respectfully request reconsideration and allowance in view of the foregoing amendments and following remarks. In the Office Action, mailed December 22, 2005, the Examiner withdrew claims 48-49, rejected claims 40-47, 50-58 and 68, and objected to claims 40, 43, 45, 46 and 57-67. By this amendment, claims 40, 43, 45, 46, 57-59, 63, 65 and 67 have been amended to correct certain informalities. Following entry of these amendments, claims 40-68 will be pending in the application, with claims 48-49 being withdrawn from consideration.

Title Formalities

In the Office Action, the Examiner objected to the title as being non-descriptive of the invention. Applicants have proposed the new title of "METHODS FOR MANUFACTURING SENSING DEVICES TO IMAGE TEXTURED SURFACES" and request that this title change be entered.

Claim Objections

In the Office Action, the Examiner objected to claims 40, 43, 45, 46, 57-59, 63, 65 and 67 because of certain informalities. Applicants have amended claims 40, 43, 45, 46, 57-59, 63, 65 and 67 to correct the Examiner's noted informalities and not for reasons related to the patentability of the subject matter of the claims. Applicants request entry of these claim amendments

Also in the Office Action, the Examiner objected to claims 59-67 as being dependent upon a rejected base claim. The Examiner did not, however, that these claims would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Applicants thank the Examiner for noting the allowable of the subject matter contained in claims 59-67. However, in view of the following remarks traversing the Examiner's claim rejections, Applicants assert that the Examiner's claim objections have been rendered moot because the underlying base claims for the objected to claims are patentably distinct from the art of record.

Therefore, for at least these reasons, Applicants respectfully submit that objected-to claims 40, 43, 45, 46, 57-67 are in condition for allowance, and respectfully request a Notice to that effect.

Claim Rejections under 35 U.S.C. §102(b)

In the Office Action, the Examiner rejected claims 40, 42, 45, 46, 56 and 57 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,844,287 to Hassan, et al. (hereinafter “Hassan”). Applicants respectfully traverse the rejections of claims 1-6, 10-13, 23 and 26.

An anticipation rejection is proper when a patent Applicant has claimed an invention that “was patented ... in this or a foreign country ... more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. §102(b). A claim is anticipated under 35 U.S.C. §102(b) “only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988) (emphasis in original), *cert. denied*, 488 U.S. 892 (1988).

For at least the reasons stated below, Applicants assert that Hassan fails to expressly or inherently describe each and every element of Applicants’ claims and, therefore, that Applicants’ rejected claims 40, 42, 45, 46, 56 and 57 are patentably distinct from Hassan.

Independent Claim 40

Applicants’ independent claim 40, as amended, recites a method of manufacturing a sensing device to image a textured surface that includes:

providing a sensor array that is fabricated upon a base, the base including an interconnect structure electrically connected to the sensor array, the sensor array having cells configured to detect the textured surface and represent different portions of the textured surface with signals corresponding thereto; and

mounting a one or more sensor support integrated circuit devices upon the base, the at least one sensor support integrated circuit device electrically connected to the interconnect structure and configured to address the cells of the sensor array and process the signals obtained from the sensor array.

Hassan neither discloses nor suggests a method of manufacturing a sensing device to image a textured surface as recited, having a sensor array fabricated upon a base with one or more sensor support integrated circuit devices mounted upon the base as required by independent claim 1.

In asserting anticipation of independent claim 1, the Examiner refers to Figures 1, 2 and 4 of Hassan. In the Examiner’s referenced Figures of Hassan, the integrated circuits are an integral part of the Hassan sensor array. (See, for example, Hassan, col. 6, ll. 10-27). In contrast, Applicants’

claim requires that the integrated circuits, which are separate and distinct device structures from the fabricated sensor array, be mounted (i.e., not fabricated) to the base. Applicants assert that those skilled in the art would readily recognize that the mounting step as in Applicants' claim requires that the integrated circuits be separate from, i.e., not an integral part of, the fabricated sensor array (and base).

In summary, for at least the reasons presented above, Hassan neither discloses nor suggests a of manufacturing a sensing device to image a textured surface as recited, having a sensor array fabricated upon a base with one or more sensor support integrated circuit devices mounted upon the base as required by amended independent claim 1. Accordingly, Applicants respectfully submits that amended independent claim 1 is allowable over the art of record.

Dependent Claims 42, 45, 46, 56 and 57

Claims 42, 45, 46, 56 and 57 all ultimately depend from amended independent claim 40. The allowability of dependent claims 42, 45, 46, 56 and 57 thus follows from the allowability of amended independent claim 40; as such, dependent claims 42, 45, 46, 56 and 57 are allowable over the art of record.

Further, regarding claim 42, the Examiner stated that Hassan teaches passive sensing cells, which Applicants respectfully assert is not the case. The Hassan cells are driven by transistors, made by CMOS technology, and are present at every cell and also at the periphery of the Hassan device in a monolithic manner. This is expressly taught in Hassan at column 4, lines 60-65, ("...every cell has a simple electronic circuit...") and also column 5, lines 1-50. At column 6, lines 25-25, Hassan expressly discusses making the sensor array and the circuitry on the same IC chip in a monolithic fashion. (See also, column 7, ll. 5-15). In contrast, Applicants' claim requires the sensor array to be fabricated using passive sensing cells.

Therefore, for at least these reasons, Applicants respectfully submit that claims 40, 42, 45, 46, 56 and 57 are in condition for allowance, and respectfully request a Notice to that effect.

Claim Rejections under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 41, 43, 44, 47, 50-55, 58 and 68 under 35 U.S.C. §103(a) as allegedly being unpatentable over Hassan, either alone or in combination with

another reference. Applicants respectfully traverse the rejections of claims 41, 43, 44, 47, 50-55, 58 and 68.

Dependent Claims 41, 43, 44, 47, 50-55, 58 and 68

Claims 41, 43, 44, 47, 50-55, 58 and 68 all ultimately depend from amended independent claim 40. The allowability of dependent claims 41, 43, 44, 47, 50-55, 58 and 68 thus follows from the allowability of amended independent claim 40; as such, dependent claims 41, 43, 44, 47, 50-55, 58 and 68 are allowable over the art of record.

Therefore, for at least these reasons, Applicants respectfully submit that claims 41, 43, 44, 47, 50-55, 58 and 68 are in condition for allowance, and respectfully request a Notice to that effect.


Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition of allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge fees that may be required relative to this application, or credit any overpayment, to Deposit Account 03-3975, Order No. 061450-0306855.

Respectfully submitted,
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